## REMARKS

Favorable reconsideration of the above-identified application is requested in view of the amendments made herein and the following remarks.

### *Examiner Interview*

Examiner Brier is thanked for conducting an interview with the Applicants' representative, Kevin McGoff, on December 1, 2006. The Applicants views were expressed during that interview and are did not deviate from the views expressed and embodied in the present response.

### *Objections to the Specification*

The Official Action objects to the specification because it recites that "photographic images (including graphics) exist in the document image data," which allegedly introduces new subject matter.

The term "patterns" is at least as broad as "graphics" in the art. Therefore, Applicants believe that changing "patterns" to --graphics-- did not add new matter. However, in the interest of progressing prosecution, Applicants amend the specification to again recite "patterns" thereby addressing the Examiner's concerns.

### *Double Patenting*

The Examiner is thanked for bringing the oversight that Claims 40 and 41 are identical. Accordingly, Claim 41 is canceled.

### *Rejections based on 35 U.S.C. § 112*

<u>Claims 1-34 and 37-47 under 35 U.S.C. § 112, first paragraph</u>

The Official Action raises issues with regard to Claims 1, 9, 17, 27, 32 and 33 in connection with the claim recitation, added at the bequest and agreement of the Examiner, "to create a layout image in a computer for presentation of the image to a user." That recitation regarding presentation to a user that is at issue is removed, thereby making that issue moot.

The Office action also raises an issue because the claims recite "at least one circuit for." The Examiner asserts that Figure 1 in the specification only shows one circuit 100 for performing the tasks referred to in the claims.

The rejection is improper because the specification does not limit the invention to one circuit. Figure 1 is a block diagram showing the structure of an embodiment of the image processing device (see page 7, lines 4-6 in the originally filed application) and does not show a single circuit. Also, paragraph [0089] of the published application recites "circuits," thereby indicating the potential to use more than one circuit. Finally, it is understood in the art that one circuit can essentially be made up of plural circuits, and that plural circuits can essentially be considered to together be one circuit. Thus, the issue of a single circuit as opposed to one circuit, in the context of a single device, is not material.

For those reasons, it is requested that the rejections be withdrawn.

### *Rejection under 35 U.S.C. § 101*

<u>Claims 1-34 and 37-41 under 35 U.S.C. § 101</u>

The Examiner is of the belief that Claims 1, 9, 17, 27, 32 and 33 are non-statutory subject matter under § 101. For the following reasons, that position is traversed.

The Examiner finds support for the position that the claimed subject matter is non-statutory in the Federal Circuit case *State Street Bank & Trust, Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998). The Examiner cites to certain parts of the case discussing the practical utility of claimed subject matter, and seems to conclude that the claims <u>must</u> recite practical presentation to a user, *e.g.*, printing on paper, to have a practical utility in the context of *State Street Bank & Trust, Co.*. However, as discussed below, the Examiner's interpretation is incorrect. In fact, the *State Street Bank & Trust, Co.* ruling supports the Applicants' assertion that the claims are within the realm of 35 U.S.C. § 101.

The claims at issue in *State Street Bank & Trust, Co.* were directed to a data processing system (the system) for implementing an investment structure which was developed for use in Signature's business as an administrator and accounting agent for mutual funds. In essence, the system, identified by the proprietary name Hub and Spoke®, facilitated a structure whereby mutual funds (Spokes) pool their assets in an investment portfolio (Hub) organized as a partnership. The investment configuration provided the administrator of a mutual fund with the advantageous combination of economies of scale in administering investments coupled with the tax advantages of a partnership. *State Street Bank & Trust*, 149 F.3d at 1370. Specifically, the job of the device was to replace the need of a fund administrator to

"calculate the value of the shares to the nearest penny within as little as an hour and a half after the market closes." *Id.*

The Federal Circuit found that the claims were valid under 35 U.S.C. § 101. The court explained that under 35 U.S.C § 101 any process, machine, manufacture, composition of matter, or any improvement thereof, was statutorily patentable subject matter, *i.e.*, anything under the sun. *See Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980). The court goes on to say that "the repetitive use of the expansive term 'any' in § 101 shows Congress's intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in § 101." *State Street Bank & Trust, Co.* 149 F.3d 1368, 1373. However, the court noted two exceptions to § 101, which are, namely, the Mathematical Algorithm Exception and the Business Method Exemption. *Street Bank & Trust, Co.*, 149 F.3d 1368, 1372 (Fed. Cir. 1998).

With regard to the Mathematical Algorithm Exception, the court sated that "Of particular relevance to this case, the Court has held that mathematical algorithms are not patentable subject matter to the extent that they are merely abstract ideas." *Id.* at 1373. The court went on to say that "certain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., 'a useful, concrete and tangible result.'" *State Street Bank & Trust, Co.* 149 F.3d 1373 (citing *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994) (emphasis added). Further, the *State Street Bank & Trust, Co.* court recited that "Unpatenable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not 'useful.'" *Street Bank & Trust, Co.* 149 F.3d 1373.

The court in *State Street Bank & Trust, Co.* ruled that the claims were valid because, though they were to a mathematical algorithm, they were to a machine that produced a result. They stated that "Today, we hold that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculation into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete and tangible result' - a final share price momentarily fixed for recording and reporting purposes..." *Id.* The court makes a final note in support of its conclusion that the mathematical algorithm is statutory subject matter and states that "After all, as we have repeatedly stated, every step-by-step process, be it electronic or chemical or mechanical, involves an algorithm in a broad sense of the term." *Id* at 1374.

The claims in the present application are statutory subject matter under § 101 when applying the analysis used by the Court in *State Street Bank & Trust, Co.*.

First, the Court in *State Street Bank & Trust, Co.* assumes that the subject matter is patentable, *i.e.*, anything under the sun. The subject matter in the present application is "under the sun" and therefore afforded the assumption of patentability.

Next, the Court asks if the claims are directed merely to a mathematical algorithm that stands alone? The claims in the present application are directed to digital image processing, which cannot be identified with a particular mathematical algorithm that "stands alone", in the context of the *State Street Bank & Trust, Co.* standards. Therefore, the present application is not a mathematical algorithm that stands alone, and is therefore statutory subject matter according to *State Street Bank & Trust, Co.*.

Finally, even assuming that the claims do recite mathematical algorithms that stand alone in the context discussed in *State Street Bank & Trust, Co.*, each claim recites a tangible result along the lines of the useful numerical result discussed in *State Street Bank & Trust, Co..* For example, Claim 1 recites a layout means for laying out character code data corresponding to character code that is generated by a generating means within at least one reconstructed document block to create a layout image.

In sum, the claims in the present application are not mathematical algorithms standing alone, and even if they were, *arguendo*, relate to resultant digital image data that is tangible and useful result.

Under § 101, and given the ruling in *State Street Bank & Trust, Co.*, the subject matter of the claims in the present application are statutory subject matter. The Examiner is requested to review the *Street Bank & Trust, Co.* decision and reconsider his position on this matter.

## *Conclusion*

For at least the reasons stated above, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections and objections, and to allow the present application.
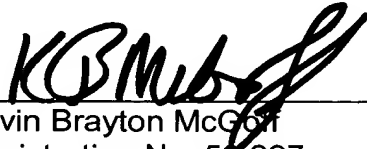
In the event that there are any questions concerning this amendment, or the

application in general, the Examiner is respectfully urged to telephone the

undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

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